

### **REMARKS/ARGUMENTS**

Favorable reconsideration of this application, as presently amended and in light of the following discussion, is respectfully requested.

Claims 1 and 3-8 are presently pending in this application, Claim 2 having been canceled, and Claims 1 and 3-8 having been amended by the present amendment.

In the outstanding Office Action, Claims 1-4, 7 and 8 were rejected under 35 U.S.C. §103(a) as being unpatentable over Ogawa et al. (U.S. Patent 5,733,352) in view of Suwabe et al. (U.S. Patent 6,827,754); and Claims 5 and 6 were rejected under 35 U.S.C. §103(a) as being unpatentable over Ogawa et al. in view of Suwabe et al., and further in view of Hijikata (U.S. Patent 7,087,286).

Claims 1 and 3-8 have been amended to clarify the subject matter recited therein, and no new matter is believed to be added thereby. If, however, the Examiner disagrees, the Examiner is invited to telephone the undersigned who will be happy to work in a joint effort to derive mutually satisfactory claim language.

Briefly recapitulating, Claim 1 of the present invention is directed to a honeycomb structural body and recites "at least one pillar-shaped porous ceramic member having a plurality of through-holes extending in a longitudinal direction of the at least one pillar-shaped porous ceramic member, the plurality of through holes partitioned by a plurality of partition walls, the through-holes being plugged at one end portion of the at least one pillar-shaped porous ceramic member, wherein the partition walls have a surface roughness of not less than 10  $\mu\text{m}$  as a maximum roughness Rz defined in JIS B0601-2001 and an average pore size of 5-100  $\mu\text{m}$  in a pore distribution measured by a mercury pressure method, and satisfy the following relationship:  $A \geq 90 - B/20$  when a ratio pores having a pore size of 0.9-1.1 times the average pore size to total pore volume is A (%) and a thickness of the partition walls is B ( $\mu\text{m}$ )."

The Office Action states that the subject matter recited in Claim 1 is obvious over Ogawa et al. and Suwabe et al. because, referring to Figure 6, “[a]lthough Suwabe, et al. does not ... expressly teach a value of A, it does suggest it.” However, it is respectfully submitted that Suwabe et al. does not teach or suggest “at least one pillar-shaped porous ceramic member ..., wherein the partition walls ... satisfy the following relationship:  $A \geq 90-B/20$  when a ratio pores having a pore size of 0.9-1.1 times the average pore size to total pore volume is A (%) and a thickness of the partition walls is B ( $\mu\text{m}$ )” recited in Claim 1. Specifically, Example 1 of Suwabe et al. has an average pore diameter of  $20.8\mu\text{m}$ ,<sup>1</sup> and thus a pore size of 0.9-1.1 times the average pore size would be  $18.72\mu\text{m}$  to  $22.88\mu\text{m}$ . Thus, referring to Figure 15, their corresponding range of pore volumes would be 0.22 to  $0.45\text{cm}^3/\text{g}$ , and the cumulative pore volume is  $0.71\text{cm}^3/\text{g}$ . Based on these figures, the average pore size to total pore volume, A, for Example 1 is calculated as follows:  $A = (0.45 - 0.22)/0.71 = 32.4\%$ . According to Suwabe et al., the thickness of the wall is 0.3mm, *i.e.*,  $300\mu\text{m}$ . As such, the right-hand side of the claimed equation,  $90-B/20$ , is calculated as follows:  $90-300/20 = 75$ . Therefore, the average pore size to total pore volume, A, being 32.4% and the value of the right-hand side of the claimed equation being 75, the equation would be  $A < 90-B/20$  for Example 1. Hence, even Suwabe et al. is combined with Ogawa et al., the “relationship:  $A \geq 90-B/20$  when a ratio pores having a pore size of 0.9-1.1 times the average pore size to total pore volume is A (%) and a thickness of the partition walls is B ( $\mu\text{m}$ )” as recited in Claim 1 cannot be met. Therefore, the subject matter recited in Claim 1 is clearly distinguishable from Ogawa et al. and Suwabe et al.

Hijikata is cited for the catalyst and sealing material recited in Claims 5 and 6, respectively, and is not believed to teach or suggest “at least one pillar-shaped porous

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<sup>1</sup> Suwabe et al., Table 1.

ceramic member ..., wherein the partition walls ... satisfy the following relationship:  $A \geq 90 - B/20$  when a ratio pores having a pore size of 0.9-1.1 times the average pore size to total pore volume is A (%) and a thickness of the partition walls is B ( $\mu\text{m}$ )” recited in Claim 1. Thus, the subject matter recited in Claim 1 is believed to be distinguishable from Hijikata as well.

Because none of Ogawa et al., Suwabe et al. and Hijikata discloses the partition walls as recited in Claim 1, their teachings even in combination are not believed to render the structure recited in Claim 1 obvious.

For the foregoing reasons, Claim 1 is believed to be allowable. Furthermore, since Claims 3-8 depend directly or indirectly from Claim 1, substantially the same arguments set forth above also apply to these dependent claims. Hence, Claims 3-8 are believed to be allowable as well.

In view of the amendments and discussions presented above, Applicants respectfully submit that the present application is in condition for allowance, and an early action favorable to that effect is earnestly solicited.

Respectfully submitted,

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